Subject: Rename files using IDL - is it possible?
Posted by LNpellen on Thu, 05 Aug 2010 07:18:25 GMT

I have a problem that FILE_DELETE do not work properly on files having
special characters in the filename. The files opens perfectly, but
when I'm finished analysing I want to delete the files automatically
with FILE_DELETE. The files that I'm working with are autogenerated
with (Norwegian) characters in the filenames and I'm pretty sure that
is the reason why FILE_DELETE generates an error.

Any ideas on how I can force IDL to delete these files?

My idea was to rename the file on opening, but I find no FILE_RENAME
function in IDL.

Best regards,

LN

Subject: Re: Rename files using IDL - is it possible?
Posted by Wout De Nolf on Thu, 05 Aug 2010 08:23:40 GMT

On Thu, 5 Aug 2010 00:18:25 -0700 (PDT), LNpellen <lnpellen@gmail.com>
wrote:

> My idea was to rename the file on opening, but I find no FILE_RENAME
> function in IDL.

You can use FILE_MOVE but if FILE_DELETE doesn't work, I'd guess this
doesn't work either.

Subject: Re: Rename files using IDL - is it possible?
Posted by LNpellen on Thu, 05 Aug 2010 10:51:45 GMT

On 5 Aug, 10:23, Wox <s...@nomail.com> wrote:
> You can use FILE_MOVE but if FILE_DELETE doesn't work, I'd guess this
> doesn't work either.

Ah - of course - move can be used as rename, but yes - as one could
guess - FILE_MOVE didn't work either.
"FILE_MOVE: Unable to expand wildcards in file path, or file does not
exist"

Any other suggestions to avoid manually deleting og renaming the files
all the time?

LN

Subject: Re: Rename files using IDL - is it possible?
Posted by Foldy Lajos on Thu, 05 Aug 2010 11:59:10 GMT
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On Thu, 5 Aug 2010, LNpellen wrote:

> On 5 Aug, 10:23, Wox <s...@nomail.com> wrote:
>> You can use FILE_MOVE but if FILE_DELETE doesn't work, I'd guess this
>> doesn't work either.
>
> Ah - of course - move can be used as rename, but yes - as one could
> guess - FILE_MOVE didn't work either.
> "FILE_MOVE: Unable to expand wildcards in file path, or file does not
> exist"
>
> Any other suggestions to avoid manually deleting og renaming the files
> all the time?
>
> LN
>

/NOEXPAND_PATH ?

regards,
lajos

Subject: Re: Rename files using IDL - is it possible?
Posted by LNpellen on Thu, 05 Aug 2010 12:17:59 GMT
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On 5 Aug, 13:59, FÖLDY Lajos <fo...@rmki.kfki.hu> wrote:

> /NOEXPAND_PATH ?
>
> regards,
> lajos

Didn't work, neither with DELETE nor MOVE.

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Thu, 05 Aug 2010 15:09:19 GMT
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On Thu, 5 Aug 2010 00:18:25 -0700 (PDT), LNpellen wrote:

> I have a problem that FILE_DELETE do not work properly on files having
> special characters in the filename. The files opens perfectly, but
> when I'm finished analysing I want to delete the files automatically
> with FILE_DELETE. The files that I'm working with are autogenerated
> with (Norwegian) characters in the filenames and I'm pretty sure that
> is the reason why FILE_DELETE generates an error.
>
Which IDL version do you use? Which OS?

Subject: Re: Rename files using IDL - is it possible?
Posted by jeanh on Thu, 05 Aug 2010 15:09:56 GMT
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On 05/08/2010 6:51 AM, LNpellen wrote:
> On 5 Aug, 10:23, Wox<s...@nomail.com> wrote:
>> You can use FILE_MOVE but if FILE_DELETE doesn't work, I'd guess this
>> doesn't work either.
>
> Ah - of course - move can be used as rename, but yes - as one could
> guess - FILE_MOVE didn't work either.
> "FILE_MOVE: Unable to expand wildcards in file path, or file does not
> exist"
>
> Any other suggestions to avoid manually deleting og renaming the files
> all the time?
>
> LN

try spawn, with the unix or dos command to delete the file
Jean

Subject: Re: Rename files using IDL - is it possible?
Posted by Craig Markwardt on Thu, 05 Aug 2010 17:46:59 GMT
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On Aug 5, 3:18 am, LNpellen <lnpel...@gmail.com> wrote:

> I have a problem that FILE_DELETE do not work properly on files having
> special characters in the filename. The files opens perfectly, but
> when I'm finished analysing I want to delete the files automatically
> with FILE_DELETE. The files that I'm working with are autogenerated
> with (Norwegian) characters in the filenames and I'm pretty sure that
> is the reason why FILE_DELETE generates an error.
>
> Any ideas on how I can force IDL to delete these files?

A trick you can use is to use the /DELETE option for the OPEN
procedure. Then the file is automatically deleted when you close it.
Of course, don't close it until you are done!

This pattern:
  OPENR, UNIT, filename, /DELETE, /GET_LUN
  FREE_LUN, UNIT
was the cross-platform way people deleted files before FILE_DELETE was
implemented.

Craig

Subject: Re: Rename files using IDL - is it possible?
Posted by LNpellen on Fri, 06 Aug 2010 06:40:15 GMT

I'm using IDL 7.1 and Windows XP

Now I've tried spawn and FILE_DELETE and OPENR with /DELETE and
discovered a bit strange behaviour (I think):

The spawn command is either incorrect or not working
IDL> spawn, 'DEL C:\testaaa.txt' (where the aaa is three norwegian A
with a ring)

FILE_DELETE and OPENR with /DELETE is not working if the filename is
defined by dialog_pickfile, but is woring if the filename is defined
with a hard coded string

Not working if a=dialog_pickfile(), working if a='C:
\testaaa.txt' (again a is a ring)
IDL> FILE_DELETE, a, (/NOEXPAND_PATH)
IDL> OPENR, UNIT, a, /DELETE, /GET_LUN & FREE_LUN, UNIT

I.e. if the string is hardcoded (which I certainly cannot do in my
program) the commands except spawn works. I did also try a(0) with
dialog_pickfile to assure it's a string, not an array of strings.

The hard coded A is a copy of the print of A using dialog_pickfile so
I find no difference in A hard coded or A defined by dialog_pickfile.

Now any suggestions?

Subject: Re: Rename files using IDL - is it possible?
Posted by chris_torrence@NOSPAM on Fri, 06 Aug 2010 16:20:20 GMT
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Hi LN,

In IDL 7.1 the file I/O routines had some problems with special
characters. These have all been fixed in IDL 8.0, and if it is
possible, I would recommend downloading IDL 8.0 and giving that a try.

Hope this helps.

Chris Torrence
IDL Software Development Manager
ITTVIS

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Fri, 06 Aug 2010 19:02:47 GMT
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On Thu, 5 Aug 2010 23:40:15 -0700 (PDT), LNpellen wrote:

> I'm using IDL 7.1 and Windows XP
>
> Now I've tried spawn and FILE_DELETE and OPENR with /DELETE and
> discovered a bit strange behaviour (I think):
>
> The spawn command is either incorrect or not working
> IDL> spawn, 'DEL C:\testaaa.txt' (where the aaa is three norwegian A
> with a ring)
>
> FILE_DELETE and OPENR with /DELETE is not working if the filename is
> defined by dialog_pickfile, but is woring if the filename is defined
> with a hard coded string
>
> Not working if a=dialog_pickfile(), working if a='C:
> \testaaa.txt' (again a is a ring)
> IDL> FILE_DELETE, a, (/NOEXPAND_PATH)
> IDL> OPENR, UNIT, a, /DELETE, /GET_LUN & FREE_LUN, UNIT
>

> I.e. if the string is hardcoded (which I certainly cannot do in my
> program) the commands except spawn works. I did also try a(0) with
> dialog_pickfile to assure it's a string, not an array of strings.
>
> The hard coded A is a copy of the print of A using dialog_pickfile so
> I find no difference in A hard coded or A defined by dialog_pickfile.
>
> Now any suggestions?

Hi LN,

I don't know if you can (or like to) update to Version 8.0 at this
time. So here is what I figured out. In IDL 7.x the strings
  a1=dialog_pickfile()
and
  a2='C:\testaaa.txt'   ; Workbench command line,
                ; replace a by A_circle!
are different:
  print,byte(a1),format='(20z3.2)'
  ; 43 3a 5c 74 65 73 74 c5 c5 c5 2e 74 78 74
  print,byte(a2),format='(20z3.2)'
  ; 43 3a 5c 74 65 73 74 c3 85 c3 85 c3 85 2e 74 78 74
a1 is the Windows ANSI (or whatever you call it) representation of the
file name, and a2 is UTF-8.

It may be a suitable workaround for you, to change each c5 to c385 in
the byte representation.

By the way, I am running Windows and IDL 7.1.2. In my installation all
three methods (spawn, file_delete, and openr,/delete) are working
without errors for both, a1 and a2. But to be honest, I really don't
know why! How does IDL or Windows know, that "a1 ist ANSI" and "a2 is
UTF-8"?

HTH, Heinz

P.S.: Could it be, that IDL/Windows first tries to treat the file_name
as an UTF-8 string. If it finds a matching file, it deletes it. And if
IDL/Windows does not find a matching file, that the string is
converted from ANSI to UTF-8 for trying to delete that file? Seems to
be a very dangerous story.

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Fri, 06 Aug 2010 19:06:58 GMT
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On Fri, 6 Aug 2010 09:20:20 -0700 (PDT), Chris Torrence wrote:

> Hi LN,
>
> In IDL 7.1 the file I/O routines had some problems with special
> characters. These have all been fixed in IDL 8.0, and if it is
> possible, I would recommend downloading IDL 8.0 and giving that a try.
>
> Hope this helps.
>
> Chris Torrence
> IDL Software Development Manager
> ITTVIS

Hi Chris,

did the people in Norway get their new license files already? In
Germany we are still waiting ;-)

Heinz

Subject: Re: Rename files using IDL - is it possible?
Posted by penteado on Fri, 06 Aug 2010 19:48:58 GMT
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On Aug 6, 4:06 pm, Heinz Stege <public.215....@arcor.de> wrote:
> did the people in Norway get their new license files already? In
> Germany we are still waiting ;-)

That is serious. I got mine, in Brazil, 2.5 hours after I asked for
it, the day IDL 8 was released.

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Fri, 06 Aug 2010 20:16:59 GMT
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On Fri, 6 Aug 2010 12:48:58 -0700 (PDT), Paulo Penteado wrote:

> On Aug 6, 4:06ï¿½pm, Heinz Stege <public.215....@arcor.de> wrote:
>> did the people in Norway get their new license files already? ï¿½In
>> Germany we are still waiting ï¿½;-)
>
> That is serious. I got mine, in Brazil, 2.5 hours after I asked for
> it, the day IDL 8 was released.

Okay, to be honest, I must say that I received an evaluation license.
In Germany the support comes from CREASO. After waiting for more than
one week I contacted them, and they gave me a temporary license
immediately. They say that it always takes a long time to get the
license files from ITTVIS.

Heinz

Subject: Re: Rename files using IDL - is it possible?
Posted by David Fanning on Fri, 06 Aug 2010 21:29:30 GMT
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Heinz Stege writes:

> Okay, to be honest, I must say that I received an evaluation license.
> In Germany the support comes from CREASO. After waiting for more than
> one week I contacted them, and they gave me a temporary license
> immediately. They say that it always takes a long time to get the
> license files from ITTVIS.

Yes, for security reasons they send these license files
via international mail on secured fishing trawlers.

Sounds like an old married couple with a love/hate
relationship to me. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Fri, 06 Aug 2010 22:48:38 GMT
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On Fri, 6 Aug 2010 09:20:20 -0700 (PDT), Chris Torrence wrote:

> Hi LN,

>
> In IDL 7.1 the file I/O routines had some problems with special
> characters. These have all been fixed in IDL 8.0, and if it is
> possible, I would recommend downloading IDL 8.0 and giving that a try.
>
> Hope this helps.
>
> Chris Torrence
> IDL Software Development Manager
> ITTVIS

Hi Chris,

I'm sorry, but it is IDL 8.0 which has a problem. Version { x86 Win32
Windows Microsoft Windows 8.0 Jun 17 2010   32   64}. Here is a
demonstration. It is a little bit complicated, because one can't
create the necessary filenames with IDL 8.0.

1. Create a file with the name test?.txt by use of the Windows
Explorer. The 5th character has to be a "Latin Capital Letter A With
Ring Above". It can be created with keystroke ALT+0197. It is replaced
by a ? in this posting, because it probably would not be transmitted
correctly.

2. Create a 2nd file with the name test??.txt. The 5th character is a
"Latin Capital Letter A With Tilde", keystroke ALT+0195. The 6th
character is a "Horizontal Ellipsis", keystroke ALT+0133.

3. Go to the IDL Workbench and "open" the 2nd file with
file=dialog_pickfile()

4. Delete the 2nd file with: file_delete,file

The first file is deleted instead of the second one. Without any error
message.

Heinz

So the message is:
Don't use IDL for deleting files that have special characters in the
name.
Wait for the next release after 8.0 and hope for a better solution?

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Tue, 10 Aug 2010 21:46:10 GMT

On Tue, 10 Aug 2010 04:58:21 -0700 (PDT), LNpellen wrote:

> So the message is:
> Don't use IDL for deleting files that have special characters in the
> name.
> Wait for the next release after 8.0 and hope for a better solution?

I think, this question has to be answered by the ITTVIS folks.

In the case, you are sure that a file with the name filename is
existing, you could do the following check:

```
if n_elements(file_search(filename)) ge 2 then $
   message,'Non-unique file specification...'
```

So you can stop program execution by issuing an error message, instead
of deleting or renaming wrong files.

Another way could be to check a whole directory for critical file
parallelisms:

```
a=file_search('*')
if n_elements(uniq(a,sort(a))) ne n_elements(a) then $
   message,'Ambiguous file access...'
```

HTH, Heinz

Subject: Re: Rename files using IDL - is it possible?
Posted by chris_torrence@NOSPAM on Thu, 12 Aug 2010 21:12:05 GMT

Hi all,

Okay, IDL 7.1.2 and IDL 8.0 fix the original poster's problem, with
testAAA.txt (where A is the A with the ring). Using either
DIALOG_PICKFILE or hard-coded, IDL 8.0 will successfully delete the
file.

Now, regarding Heinz's problem - this is unfortunately a pathological
case, where the 195+133 happens to be the UTF-8 encoding for the
extended ASCII character for 197 (the A with the ring).

Internally, IDL tries to recognize UTF-8 strings by the rules for

UTF-8 encoding. If the first byte is > 193, and the second byte is between 128-191, then IDL assumes that this is a UTF-8 string. The file I/O routine then converts the filename to UTF-8 encoding, which converts the 195+133 to 197, and therefore ends up with the same filename.

Our UTF-8 conversion routines are based upon the UTF-8 standard, and are designed to the best of our ability to work with multiple languages and encodings, including European and Asian languages. Unfortunately, given a random string of bytes, there is no way to definitively determine that this is a UTF-8 versus native string. Hopefully, the case given by Heinz will occur rarely if ever.

Cheers,
Chris
ITTVIS

Subject: Re: Rename files using IDL - is it possible?
Posted by Heinz Stege on Fri, 13 Aug 2010 22:15:36 GMT

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Hi Chris.

On Thu, 12 Aug 2010 14:12:05 -0700 (PDT), Chris Torrence wrote:

> Hi all,
>
> ...
>
> Now, regarding Heinz's problem - this is unfortunately a pathological
> case, where the 195+133 happens to be the UTF-8 encoding for the
> extended ASCII character for 197 (the A with the ring).
>
> Internally, IDL tries to recognize UTF-8 strings by the rules for
> UTF-8 encoding. If the first byte is > 193, and the second byte is
> between 128-191, then IDL assumes that this is a UTF-8 string. The
> file I/O routine then converts the filename to UTF-8 encoding, which
> converts the 195+133 to 197, and therefore ends up with the same
> filename.
>
> Our UTF-8 conversion routines are based upon the UTF-8 standard, and
> are designed to the best of our ability to work with multiple
> languages and encodings, including European and Asian languages.
> Unfortunately, given a random string of bytes, there is no way to
> definitively determine that this is a UTF-8 versus native string.
> Hopefully, the case given by Heinz will occur rarely if ever.
>

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> Cheers,
> Chris
> ITTVIS

Thank you very much for this explanation.

I share your view, that this "pathological case" under normal circumstances will occur rarely if ever. On the other hand it is a very serious thing to delete wrong files or even wrong directories. I wonder if it is the concept of UTF-8 to convert strings to extended ASCII - as far as possible. In this way we get a mix of filenames, some encoded in extended ASCII and others in UTF-8.

I am afraid that this approach will make trouble for IDL users again and again. Aren't there better solutions?

Would it be possible to use UTF-8 filenames for the I/O routines in principle? Or at least if a corresponding keyword is set? I myself felt fine with the IDL 7 approach.

You could add the conversion routines separately to the builtin functions. This would give users the option to do the conversion if wanted. This furthermore would not break old code.

Regards, Heinz